Income and Income Inequality Are a Matter of Life and Death. What Can Policymakers Do About It?

Anton L. V. Avanceña, MS, Ellen Kim DeLuca, MPH, Bradley Iott, MS, MPH, Amanda Mauri, MPH, Nicholas Miller, MPH, Daniel Eisenberg, PhD, and David W. Hutton, PhD

ABOUT THE AUTHORS

Anton L. V. Avanceña, Ellen Kim DeLuca, Bradley Iott, and Amanda Mauri are PhD candidates in health services organization and policy at the University of Michigan, Ann Arbor. Nicholas Miller is a recent MPH graduate in epidemiology at the University of Michigan, Ann Arbor. Daniel Eisenberg is with the Fielding School of Public Health, University of California, Los Angeles. David W. Hutton is with the School of Public Health, University of Michigan, Ann Arbor.

AJPH August 2021, Vol 111, No. 8

Poverty and inequality are among the most pressing and persistent problems in US society, and the COVID-19 pandemic underscores how perilous—and deadly—inaction on these issues can be. People with low incomes work essential jobs in transportation, food production and delivery, health care, and other service-oriented industries that put them at risk for contracting COVID-19 and may compound existing health, social, and economic challenges they faced even before the pandemic. Additionally, about half of these low-wage workers are non-White and are more likely to experience barriers to health care and suffer from comorbidities than their White counterparts because of systemic racism.[1] Beyond occupational risk, people with low incomes suffer from more comorbidities that heighten the risk of infection and hospitalization. Data from Medicare, for example, showed that low-income older adults were more likely to be diagnosed with and hospitalized for COVID-19 (Figure 1)[2]; once hospitalized for COVID-19, older adults and those with certain underlying medical conditions face a mortality risk of 30% or higher.[3] The COVID-19 pandemic clearly shows that income inequality is a matter of life and death.

In stark contrast to the experience of low-income populations, high-income individuals were significantly more likely to keep their jobs and telework after social-distancing guidelines were implemented across the country. The extremely wealthy have fared even better; estimates from advocacy organizations suggest that the wealth of US billionaires has increased by $1.1 trillion since March 2020, signifying that they have not only recovered but have become richer since the pandemic started.[4] This finding clearly illustrates how income and wealth inequality is perpetuated in the United States.

Meanwhile, tens of millions are still unemployed, with some of those receiving unemployment benefits, and the poverty rate increased from 9.3% in June 2020 to 11.8% in December 2020, with the steepest increases among Black individuals, children, and people with a high school education or less.[5,6] Without deliberate interventions, economic recovery from the pandemic will surely be hardest for the most vulnerable and marginalized populations.

INCOME SHAPES HEALTH AND LONGEVITY

Because income is a significant, well-documented determinant of health, the effects of low income and income inequality are reflected in population health. Referred to as a "cause of causes" or "fundamental cause" of health outcomes, income shapes the resources at our disposal, the disease risks we are exposed to, and our ability to mitigate these risks.[7] Decades of research have shown that low-income people have poorer self-reported health and higher rates of communicable and noncommunicable diseases and injuries because of a constellation of risk factors, such as smoking, unhealthy diet associated with food poverty and insecurity, stress and anxiety, and unemployment and job insecurity, among others.[8,9] Income influences health throughout a person's life course; for example, low-income mothers are more likely to have babies with low birth weight, which, in turn, is associated with negative physical and mental health outcomes.[10] Among older adults, low wealth—a more appropriate measure of socioeconomic position at older ages than income—is associated with a more marked decline in physical and psychosocial functions.[11]

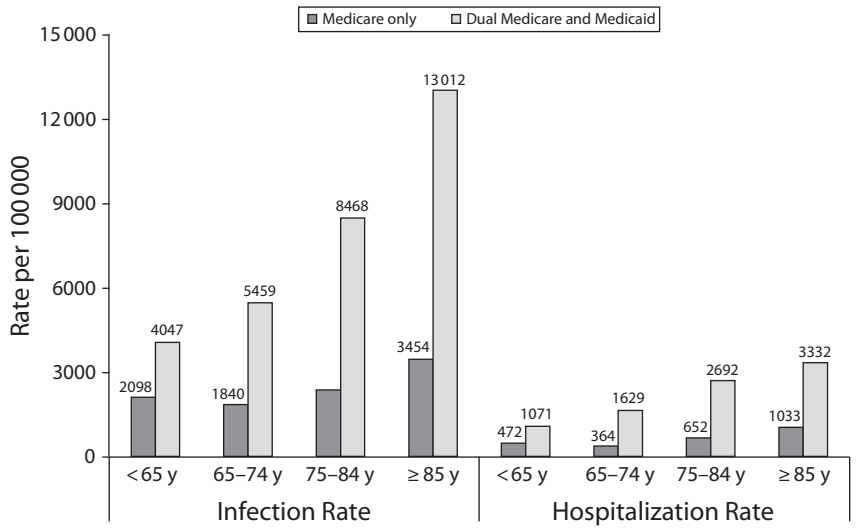

FIGURE 1— COVID-19 Infection and Hospitalization Rates Among Medicare Beneficiaries: United States, January 1–November 21, 2020

Note. This figure shows COVID-19 infection and hospitalization rates per 100 000 Medicare beneficiaries by age group as reported by the Centers for Medicare & Medicaid Services.[2] More than 12.2 million primarily low-income Medicare beneficiaries also qualify for their state's Medicaid program and receive either full or partial benefits. At any age, dual-eligible beneficiaries experience higher rates of COVID-19 infection and COVID-19–related hospitalizations.

Additionally, the presence of income inequality itself has been linked to negative health outcomes. There has been a significant increase in income inequality in the United States since the 1980s following deliberate government policies to reduce tax rates and shrink social safety net programs. Today, 50% of all household income goes to the top 10% of earners, and only 13% goes to the bottom 50% of earners. Similarly, 31% of household wealth goes to the top 1% of households, and only 2% of household wealth is held by the bottom 50% of households.[12,13] It is important to note that racism has played a significant role in creating the income and wealth differential in the United States; in 2019, the typical White family had eight times more wealth than a typical Black family ($184 000 vs $23 000).[12]

Increasing income inequality has coincided with disparities in health and longevity. For example, societies with wider income inequalities have been found to have higher rates of interpersonal violence and mental illness.[14] There has also been an increase in gaps in survival between high- and low-income individuals, with top earners increasing their life expectancy and low-income individuals decreasing theirs.[15] Although inequality is an ecological phenomenon, one potential mechanism for how it affects individuals is through a psychosocial pathway; research suggests that inequality is a "social stressor" that causes social anxiety and chronic stress and erodes social support and cohesion, which are essential health resources.[14,15]

The effect of income on health is arguably most consequential in its role in extending life, and there is strong evidence for the negative, nonlinear association between income and mortality in the United States. For example, three studies using distinct longitudinal panel data have consistently shown that adults with higher personal or family incomes face lower rates of all-cause mortality.[16–18] One of these studies estimates that after adjusting for race and age, people in the highest income decile (≥ $105 500 per year in 2019 dollars) have incident mortality rates that are 38% lower than the rates of those with an average household income (approximately $52 500–$63 500 per year).

On the other hand, people in the lowest household income decile (≤ $11 500 per year) face incident mortality rates that are more than two times higher than the rates of people with average incomes. Another recent study, which used 1.4 billion tax records, showed that there is a 14.6-year life expectancy difference between males in the top 1% and the bottom 1% of the income distribution; among females, the difference is 10.1 years.[19] In addition, the advantage in longevity among high-income individuals grew between 2001 and 2014. This relationship between income and mortality holds even when lifetime earnings or wealth are used as measures of exposure. Additionally, sudden decreases in income or wealth are associated with a higher risk of death.[20]

Income's effect on health often follows a "social gradient," or stepwise pattern, whereby people with incrementally higher incomes fare better than their lower-income counterparts.[7] This pattern is often cited as a rationale for paying attention to people across the income distribution because a narrow focus on people with very low incomes would miss those in the middle, whose health is also negatively affected by inequality. Although a gradient is observed between income and mortality, income gains among people with high incomes provide lower returns in longevity than do income gains among people with low incomes. For example,

one study found that increasing one's annual income from $14 000 to $20 000 (a $6000 increase) would have the same benefit in life expectancy as increasing one's annual income from $161 000 to $224 000 (a $63 000 increase).[19] In another study, individuals with annual household incomes below $49 100 (in 2019 dollars) had the greatest reduction in mortality risk from an increase in income; the benefit among people with higher household incomes was smaller and not statistically significant.[18]

These findings highlight the importance of broad strategies that will benefit people across the income distribution; at the same time, the diminishing returns of increased income on mortality also emphasize that people with the lowest incomes have the most to gain from policy interventions and should be prioritized. As one study aptly concludes, people with lower incomes are "paying with their lives to sustain high inequality."[16(p187)]

THE POLICY OPTIONS

With the election of President Joseph Biden and Democratic control of Congress, there is renewed hope for federal policy to address income and wealth inequality in the United States. We briefly describe several ideas with varying complexity, feasibility, and popularity; President Biden, Vice-President Kamala Harris, and other Democratic presidential candidates advocated many of these while campaigning before the election. Our aim here is not to be exhaustive or prescriptive; instead, we illustrate the gamut of options that can address income inequality now and in the long term.

At a minimum, providing cash and in-kind support (e.g., through the Supplemental Nutrition Assistance Program or cash assistance) to individuals and families experiencing poverty is paramount, especially during the current period of significant job loss and uncertainty. President Biden issued an executive order authorizing an expansion of the Pandemic Electronic Benefits Transfer program that increases the dollar amount low-income families receive to cover food costs for children who would have received meals through school. The executive action also increased Supplemental Nutrition Assistance Program allotments, and these are important first steps. For workers risking their health to earn a living and provide essential services during the pandemic, hazard pay is a straightforward and fair solution that can help low-wage workers while the pandemic is ongoing.

In the medium to long term, several policy options can be explored. One approach is to increase the minimum wage. Although several states and cities have passed local ordinances to increase their minimum wage and President Biden has signed an executive order to raise the minimum wage of federal contractors, the federal minimum wage, which sets a pay floor for all states, has not changed since 2009—the longest period without an increase in its history. Even more concerning, between 2009 and 2019, the inflation-adjusted value of the minimum wage has decreased by 17%, leading to significant losses for minimum wage workers.[21] The Congressional Budget Office estimates that increasing the federal minimum wage from $7.25 to $15.00 per hour by 2025 would increase the incomes of up to 27 million low-wage, predominantly Black and Brown workers and lift close to one million people out of poverty.[22] However, poverty alleviation should not be the only goal in increasing the minimum wage, especially because many people will still be unable to cover all their local costs of living at $15 per hour.

Although increasing the minimum wage may lead to some job loss as the Congressional Budget Office has recently projected, significantly more low-wage workers will benefit from such a policy, leaving them better off as a whole. There is also evidence that jurisdictions that increased the minimum wage experienced stronger wage growth for those in the lowest income bracket compared with jurisdictions that did not implement any changes.[23] In terms of health benefits, higher minimum wages have been linked with a decrease in infant mortality and low birth weight births.[24]

Changes to the tax code can also be implemented. The Earned Income Tax Credit (EITC), often described as the "single most effective antipoverty program for working-age people," has helped lift millions of low- and moderate-income workers out of poverty, primarily those with children.[25] Research has also shown that the EITC is a cost-effective intervention that improves survival, self-reported health, and child development.[10,26,27] The EITC can be expanded, or a similar program can be developed, to benefit childless, low-income people, including those who cannot find steady employment. A federal jobs guarantee, which provides every person seeking employment a living-wage job with full benefits through the government, gained a lot of support among Democratic presidential hopefuls as a means of achieving full employment and eliminating poverty. Although much more complex and ambitious than other proposals, a jobs guarantee is purported to boost the economy and create millions of public and private sector jobs.[28]

However, the EITC, a jobs guarantee, and other similar programs that rely on workforce participation may still leave out elderly individuals, disabled individuals, and informal caregivers who cannot take on full-time employment.

Finally, policymakers can consider adopting progressive tax policies to fund social programs. A wealth tax, for example, can be used to improve access to health care, housing, and job training. Such an approach can achieve multiple goals, such as increasing the disposable income of families and individuals, decoupling the role of income in accessing health-promoting resources, and reducing the magnitude of income inequality, which, as we pointed out, is independently associated with negative health outcomes. Other policies gaining popularity and acceptance are guaranteed income programs such as universal basic income and negative income taxes, which could replace or supplement current means-tested safety net and anti-poverty programs.[29] These redistributive policies would increase the role of government in reducing inequality, which helped narrow inequality in the United States and elsewhere in the early to mid-20th century.

These policy options are no longer just ideas on a page. Florida residents overwhelmingly voted to increase the minimum wage to $15 per hour by 2026, joining seven other states and Washington, DC, that are gradually increasing their hourly wages.[23] Private companies such as Costco and Target have also increased the starting wages of their employees to $15 per hour or higher; in another, highly publicized example, Gravity Payments increased the minimum income of its employees to $70 000 a year. The City of Stockton, California, is experimenting with universal basic income and has reported positive preliminary results, and close to 30 other cities have pledged to do the same.[30] Since the pandemic began, Congress has three times approved relief checks, increases to unemployment benefits, and other financial aid to individuals in need, which are policies that share similarities to guaranteed income programs. The expanded child tax credit included in the most recent pandemic package, which provides up to $300 monthly per child for one year, is essentially guaranteed income for families with children—an idea that a minority of Republicans supported, although at the expense of other social safety programs.

Even before the COVID-19 pandemic, income inequality in the United States was a social ill that exacted economic and health costs primarily borne by the poorest in society. With a nation reeling from inequality's unmistakable effects, the current administration has an opportunity to transform health, lives, and livelihoods by enacting some of the policies we have listed, along with reforms in education, immigration policy, racial equality, criminal justice, and other structural factors that shape the experience of disadvantaged and vulnerable populations in this country. Like most Americans, we hope our leaders will heed the call—science, justice, and hope are on their side. AJPH

CORRESPONDENCE

Correspondence should be sent to Anton Avanceña, 1415 Washington Heights, SPH II, Ann Arbor, MI 48109 (e-mail: antonlv@umich.edu). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

PUBLICATION INFORMATION

Full Citation: Avanceña ALV, Kim DeLuca E, Iott B, et al. Income and income inequality are a matter of life and death. What can policymakers do about it?. *Am J Public Health*. 2021;111(8):1404–1408.

Acceptance Date: March 19, 2021.

DOI: https://doi.org/10.2105/AJPH.2021.306301

CONTRIBUTORS

A. L. V. Avanceña wrote the first draft and revised the article. E. Kim DeLuca, B. Iott, A Mauri, N. Miller, D. Eisenberg, and D. W. Hutton reviewed and revised the article. All authors approved the final version.

ACKNOWLEDGMENTS

Poverty Solutions at the University of Michigan supported the authors to write this article (grant FG 20002). A. L. V. Avanceña is a Robert Wood Johnson Foundation Health Policy Research Scholar (grant 75647).

The authors thank the reviewers and editors for their thoughtful comments on this article.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest related to this work.

REFERENCES

1. Abedi V, Olulana O, Avula V, et al. Racial, economic, and health inequality and COVID-19 infection in the United States. *J Racial Ethn Health Disparities.* 2021;8(3):732–742. https://doi.org/10.1007/s40615-020-00833-4.
2. Centers for Medicare & Medicaid Services. Preliminary Medicare COVID-19 data snapshot. 2020. Available at: https://www.cms.gov/files/document/medicare-covid-19-data-snapshot-fact-sheet.pdf. Accessed March 12, 2021.
3. Goodman KE, Magder LS, Baghdadi JD, et al. Impact of sex and metabolic comorbidities on COVID-19 mortality risk across age groups: 66,646 inpatients across 613 U.S. hospitals. *Clinical Infectious Diseases.* 2020; Epub ahead of print. https://doi.org/10.1093/cid/ciaa1787
4. Egan M. America's billionaires have grown $1.1 trillion richer during the pandemic. 2021. Available at: https://www.cnn.com/2021/01/26/business/billionaire-wealth-inequality-poverty/index.html. Accessed March 13, 2021.
5. US Department of Labor. Unemployment insurance weekly claims. 2021. Available at: https://www.dol.gov/ui/data.pdf. Accessed March 12, 2021.
6. Han J, Meyer BD, Sullivan JX. Real-time poverty estimates during the COVID-19 pandemic through 2021. Available at: http://povertymeasurement.org/wp-content/uploads/2021/02/Monthly_poverty_rates_updated_thru_Jan_2021_v5.pdf. Accessed March 12, 2021.
7. Braveman P, Gottlieb L. The social determinants of health: it's time to consider the causes of the causes. *Public Health Rep.* 2014;129(suppl 2):19–31. https://doi.org/10.1177/00333549141291S206
8. Braveman PA, Cubbin C, Egerter S, Williams DR, Pamuk E. Socioeconomic disparities in health in the United States: what the patterns tell us. *Am J Public Health.* 2010;100(suppl 1):S186–S196. https://doi.org/10.2105/AJPH.2009.166082
9. Bosworth B. Increasing disparities in mortality by socioeconomic status. *Annu Rev Public Health.* 2018;39:237–251. https://doi.org/10.1146/annurev-publhealth-040617-014615

10. Strully KW, Rehkopf DH, Xuan Z. Effects of prenatal poverty on infant health: state earned income tax credits and birth weight. *Am Sociol Rev.* 2010;75(4):534–562. https://doi.org/10.1177/0003122410374086
11. Steptoe A, Zaninotto P. Lower socioeconomic status and the acceleration of aging: an outcome-wide analysis. *Proc Natl Acad Sci USA.* 2020;117(26):14911–14917. https://doi.org/10.1073/pnas.1915741117
12. Kent AH, Ricketts LR. Has wealth inequality in America changed over time? Here are key statistics. 2020. Available at: https://www.stlouisfed.org/open-vault/2019/august/wealth-inequality-in-america-facts-figures. Accessed March 13, 2021.
13. Board of Governors of the Federal Reserve System. Distribution of household wealth in the U.S. since 1989. 2020. Available at: https://www.federalreserve.gov/releases/z1/dataviz/dfa/distribute/table. Accessed March 13, 2021.
14. Pickett KE, Wilkinson RG. Income inequality and health: a causal review. *Soc Sci Med.* 2015;128:316–326. https://doi.org/10.1016/j.socscimed.2014.12.031
15. Bor J, Cohen GH, Galea S. Population health in an era of rising income inequality: USA, 1980–2015. *Lancet.* 2017;389(10077):1475–1490. https://doi.org/10.1016/S0140-6736(17)30571-8
16. Brodish PH, Hakes JK. Quantifying the individual-level association between income and mortality risk in the United States using the National Longitudinal Mortality Study. *Soc Sci Med.* 2016;170:180–187. https://doi.org/10.1016/j.socscimed.2016.10.026
17. Lantz PM, Golberstein E, House JS, Morenoff J. Socioeconomic and behavioral risk factors for mortality in a national 19-year prospective study of US adults. *Soc Sci Med.* 2010;70(10):1558–1566. https://doi.org/10.1016/j.socscimed.2010.02.003
18. Dowd JB, Albright J, Raghunathan TE, Schoeni RF, LeClere F, Kaplan GA. Deeper and wider: income and mortality in the USA over three decades. *Int J Epidemiol.* 2011;40(1):183–188. https://doi.org/10.1093/ije/dyq189
19. Chetty R, Stepner M, Abraham S, et al. The association between income and life expectancy in the United States, 2001–2014. *JAMA.* 2016;315(16):1750. https://doi.org/10.1001/jama.2016.4226
20. Pool LR, Burgard SA, Needham BL, Elliott MR, Langa KM, Mendes de Leon CF. Association of a negative wealth shock with all-cause mortality in middle-aged and older adults in the United States. *JAMA.* 2018;319(13):1341–1350. https://doi.org/10.1001/jama.2018.2055
21. Cooper D, Gould E, Zipperer B. Low-wage workers are suffering from a decline in the real value of the federal minimum wage. 2019. Available at: https://www.epi.org/publication/labor-day-2019-minimum-wage. Accessed March 13, 2021.
22. Congressional Budget Office. The budgetary effects of the Raise the Wage Act of 2021. Available at: https://www.cbo.gov/system/files/2021-02/56975-Minimum-Wage.pdf. Accessed March 13, 2021.
23. Dube A, Lindner A. City limits: what do local-area minimum wages do? *J Econ Perspect.* 2021;35(1):27–50. https://doi.org/10.1257/jep.35.1.27
24. Komro KA, Livingston MD, Markowitz S, Wagenaar AC. The effect of an increased minimum wage on infant mortality and birth weight. *Am J Public Health.* 2016;106(8):1514–1516. https://doi.org/10.2105/AJPH.2016.303268
25. Tax Policy Center. What is the earned income tax credit? 2020. Available at: https://www.taxpolicycenter.org/briefing-book/what-earned-income-tax-credit. Accessed October 9, 2020.
26. Muennig PA, Mohit B, Wu J, Jia H, Rosen Z. Cost effectiveness of the earned income tax credit as a health policy investment. *Am J Prev Med.* 2016;51(6):874–881. https://doi.org/10.1016/j.amepre.2016.07.001
27. Muennig P, Vail D, Hakes JK. Can antipoverty programmes save lives? Quasi-experimental evidence from the earned income tax credit in the USA. *BMJ Open.* 2020;10(8):e037051. https://doi.org/10.1136/bmjopen-2020-037051
28. Paul M, Darity W, Hamilton D. The federal job guarantee—a policy to achieve permanent full employment. 2018. Available at: https://www.cbpp.org/sites/default/files/atoms/files/3-9-18fe.pdf. Accessed January 20, 2021.
29. Wiederspan J, Rhodes E, Shaefer HL. Expanding the discourse on antipoverty policy: reconsidering a negative income tax. *J Poverty.* 2015;19(2):218–238. https://doi.org/10.1080/10875549.2014.991889
30. Lowrey A. Stockton's basic-income experiment pays off. Available at: https://www.theatlantic.com/ideas/archive/2021/03/stocktons-basic-income-experiment-pays-off/618174. Accessed March 13, 2021.